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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/695,269	10/28/2003	Janne Kesala	SEPP14.001C1	4712

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EXAMINER	
BUEKER, RICHARD R	

ART UNIT	PAPER NUMBER
1763	

DATE MAILED: 03/24/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/695,269	KESALA, JANNE	
	Examiner	Art Unit	
	Richard Bueker	1763	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *30 January 2006*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *37-45* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *37-45* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.
>
> (e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claims 37-39, 41, 43 and 44 are rejected under 35 U.S.C. 102(a) or (e) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Tasaki (6,149,975). Tasaki (see Figs. 1-4) discloses a reactant source assembly for generating a reactant gas flow comprising a first container containing reactant material to be vaporized. The first container is located in a second container, which is inherently or obviously gas-tight, having gas inlet and outlet pipes connected to the second container. The first container has an opening that opens into the gas space of the second container. The first container of Tasaki is metal and the plate 3, which can be considered to be a wall of the second container, is stainless steel. It also would have been obvious to use stainless steel for the outer walls of the second container, because Tasaki teaches that stainless steel is compatible with the reactants to be vaporized.

Regarding the lid recited in claim 37, it is noted that the lid of Tasaki's chamber 2 (Fig. 1), which is supported on the sidewall of chamber 2, also covers the first container as required in claim 37 as amended.

Claim 40 is rejected under 35 U.S.C. 103(a) as being unpatentable over Tasaki (6,149,975) taken in view of Soininen (WO 96/17106), who teaches that containers for vaporizing reactants can be made of glass, and therefore it would have been obvious to use glass as the material of Tasaki's reactant container.

Claims 37 and 40, 41, 43 and 44 are rejected under 35 U.S.C. 102(a) or (e) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Tomosawa (JP 06-232048). Tomosawa discloses (see Figs. 1 and 2, for example) a reactant source assembly for generating a reactant gas flow comprising a first container containing reactant material to be vaporized. The first container is located in a second container which is gas-tight, having gas inlet and outlet pipes connected to the second container. The first container has an opening that opens into the gas space of the second container. The first container of Tomosawa is made of quartz, which is a glass as recited in claim 40 and a ceramic as recited in claim 41. Regarding the lid recited in claim 37, it is noted that the lid of Tomosawa's outer chamber (see Fig. 1) also covers the first container as required in claim 37 as amended.

Claims 37 and 40-44 are rejected under 35 U.S.C. 1023(a) as obvious over Tomosawa (JP 06-232048) taken in view of Horsky (6,107,634), Kikuchi (JP 54-096360) or Howson. Tomosawa discloses (see Figs. 1 and 2, for example) a reactant source assembly for generating a reactant gas flow comprising a first container containing

reactant material to be vaporized. The first container is located in a second container which is gas-tight, having gas inlet and outlet pipes connected to the second container. The first container has an opening that opens into the gas space of the second container. The first container of Tomosawa is made of quartz, which is a glass as recited in claim 40 and a ceramic as recited in claim 41. Horsky (6,107,634) (Fig. 2 and col. 4, lines 5-16), Kikuchi (JP 54-096360) and Howson (page 272, col. 2, lines 7-11), each teaches that a mechanical filter should be placed as a lid on the opening of a container for holding material to be vaporized in a sublimation vaporizer, to prevent unvaporized particles from exiting the container. In view of these teachings, it would have been obvious to one skilled in the art to provide the reactant material container of Tomosawa with such a mechanical filter to prevent unvaporized material from exiting Tasaki's container.

Claims 38 and 39 are rejected under 35 U.S.C. 1023(a) as obvious over Tomosawa (JP 06-232048) taken in view of Horsky (6,107,634), Kikuchi (JP 54-096360) or Howson for the reasons stated above, taken in further view of Tasaki (6,149,975), who teaches that a vaporizer should be provided with an outlet valve as claimed in claim 38. It would have been obvious to provide Tomosawa's vaporizer with an outlet valve because Tasaki teaches that an outlet valve is required to control the vapor output of a vaporizer. Also, the first container of Tasaki is metal and the plate 3, which can be considered to be a wall of the second container, is stainless steel. It also would have been obvious to use stainless steel for the outer walls of the second container of

Tomosawa, because Tasaki teaches that stainless steel is compatible with the reactants to be vaporized.

Claim 45 is rejected under 35 U.S.C. 103(a) as being unpatentable over Tomosawa (JP 06-232048) taken in view of Horsky (6,107,634), Kikuchi (JP 54-096360) or Howson for the reasons stated in the rejection of claim 37 above, and taken in further view of Guellich (2,378,476). Horsky, Kikuchi and Howson do not suggest the use of a sintered ceramic as the material from which a mechanical filter can be constructed. Guellich (col. 2, lines 14-33), however, teaches that a porous ceramic material such as silicon carbide aluminum oxide or zirconium oxide can successfully be used as a mechanical filter on a vapor source. It is noted that ceramic articles are conventionally made by a sintering process. It would have been obvious to provide a ceramic mechanical filter for the crucible of Tomosawa because Horsky, Kikuchi and Howson teach the desirability of using mechanical filters on vaporizer crucibles, and because Guellich teaches that a mechanical filter for a vaporizer crucible can successfully be constructed of porous ceramic.

Claim 40 is rejected under 35 U.S.C. 103(a) as being unpatentable over Tomosawa (JP 06-232048) taken in view of Horsky (6,107,634), Kikuchi (JP 54-096360) or Howson for the reasons stated in the rejection of claim 37 above, and taken in further view of Soininen (WO 96/17106), who teaches that containers for vaporizing reactants can be made of glass, and therefore it would have been obvious to use glass as the material of Tasaki's reactant container.

Claims 37, 38, 41, 43 and 44 are rejected under 35 U.S.C. 102(b) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Baxter (5,803,976) (see Figs. 3 and 4, for example), who discloses a vaporizer comprising a retort container 37 (a second container as recited in claim 37) enclosing a crucible container 35 (a first container as recited in claim 37). Lid 39 is configured to cover the crucible container. Container 37 includes an inlet 46 (see Fig. 3) and an outlet 29. The opening of the first container opens into the gas space enclosed by the second container.

Claims 37-39 and 41-45 are rejected under 35 U.S.C. 103(a) as being unpatentable over Baxter (5,803,976) taken in view of Witzman (6,202,591), Smith (6,830,626) and Guellich (2,378,476). Witzman (see Fig. 3a-3C and 7-9), Smith (see Fig. 13, for example) and Guellich (Figs. 1-3) all teach that a crucible should be covered with a perforated lid that acts as a mechanical filter to remove particulate impurities from a gas vaporized in the crucible. Guellich in particular teaches the use of a ceramic sinter as the lid. It would have been obvious to one skilled in the art to provide the crucible of Baxter with a lid that acted as a mechanical filter in the manner taught by Witzman, Smith and Guellich, for the desirable purpose of removing particulate impurities in the vapor generated in the crucible. Conversely, it also would have been obvious to provide the retort of Smith or Witzman with a gas inlet of the same type as gas inlet 46 of Fig. 3 of Baxter, for rapidly reducing the vaporizer temperature as taught by Baxter.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Richard Bueker whose telephone number is (571) 272-1431. The examiner can normally be reached on 9 AM - 5:30 PM, Monday-Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Parvis Hassanzadeh can be reached on (571) 272-1435. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Richard Bueker
Primary Examiner
Art Unit 1763